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- (51) **Int. Cl.**
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- (57) **ABSTRACT**

A system for performing real-time failure mode analysis of a monitored system is disclosed. The system includes a data acquisition component, an analytics server and a client terminal. The data acquisition component is communicatively connected to a sensor configured to acquire real-time data output from the monitored system. The analytics server is communicatively connected to the data acquisition component and is comprised of a virtual system modeling engine, an analytics engine and a machine learning engine.

58 Claims, 20 Drawing Sheets

